Message

From: Gallo, Patty (CONTR) [Patty.Gallo@lm.doe.gov]
Sent: 5/30/2017 11:29:26 PM
To: Moritz, Vera [Moritz.Vera@epa.gov]; 'Carl Spreng (carl.spreng@state.co.us)' (carl.spreng@state.co.us) [carl.spreng@state.co.us]; lindsay.masters@state.co.us; Surovchak, Scott [Scott.Surovchak@lm.doe.gov]
CC: McDonald, Michael (CONTR) [Michael.McDonald@lm.doe.gov]; Valenti, John (CONTR) [John.Valenti@lm.doe.gov]; Newsom, Scott (CONTR) [Scott.Newsom@lm.doe.gov]; Cummins, Laura (CONTR) [Laura.Cummins@lm.doe.gov]; Kaiser, Linda (CONTR) [Linda.Kaiser@lm.doe.gov]; Ward, David (CONTR) [David.Ward@lm.doe.gov]
Subject: RE: Summary of conference call discussion - FYR

All:

Through phone conversations and emails, the remaining questions from the conference call last week have been resolved.

In summary:

- **Radiological Risk Review.** The exposure frequency (234 days/year) for the rural resident is appropriate. As a result, additional PRG calculations for the POU and OU3 are not required and no changes to the FYR report were made.
- **Chemical Risk Review.** The January 2017 IRIS report for benzo(a)pyrene was reviewed and determined applicable to the chemical risk review for this FYR. The oral ingestion slope factor for benzo[*a*]pyrene is lower than that used in the CRA, indicating lower risks than originally estimated. Appendix C, Section 6.2.2.1, and relevant tables were revised to account for this information.

Please see inserted red text below for details.

Again, thanks for your careful review of the FYR report. Your input definitely made the document better.

Patty

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From: Gallo, Patty (CONTR)
Sent: Thursday, May 25, 2017 4:56 PM
To: Moritz, Vera (Moritz.Vera@epa.gov); 'Carl Spreng (carl.spreng@state.co.us)' (carl.spreng@state.co.us); lindsay.masters@state.co.us; Surovchak, Scott

Cc: McDonald, Michael (CONTR); Valenti, John (CONTR); Newsom, Scott (CONTR); Cummins, Laura (CONTR); Kaiser, Linda (CONTR); Ward, David (CONTR); Gallo, Patty (CONTR)
Subject: Summary of conference call discussion - FYR

All:

Below is a summary of items discussed in our conference call today. The purpose of the call was to address questions from CDPHE on the RESRAD and PRG calculator input parameters (PDF files) emailed to the FYR Team on May 24 and speak about CDPHE comments on the revised Appendix C, *Risk Assessment Review* of the FYR report. Conference call participants included DOE: Scott Surovchak; CDPHE: Carl Spreng and Lindsay Masters; DOE contractors: Mike McDonald, Scott Newsom, Patty Gallo, David Ward.

Questions on the radiological input parameters:

1. In the RESRAD 2017 PDF file, why did we run the Windblown EU for Uranium and not Pu/Am? Can we complete a 2017 run for surface soil Pu/Am in the Windblown EU? Mike McDonald (DOE contractor) completed the requested RESRAD run for surface soil Pu/Am in the WBEU and it has been distributed to the Team. The results of this Pu/Am RESRAD run will replace the results of the WRW surface soil U RESRAD run (last scenario listed) in Table C-12. Associated text in the appendix will be revised, if necessary.
2. Why did we use 234 days/year as the exposure frequency for the residential scenario in the PRG calculator (as opposed to 350 days/year)? This value came from the 2002 RSAL document and is described as the average residential exposure frequency. John Valenti (DOE contractor most familiar with the PRG calculator) was on vacation at the time of this call. **ACTION: P. Gallo to follow up with John on Tuesday, May 30.** John confirmed that the site-specific input parameters used in the 2017 PRG calculator were taken from the 2002 RSAL document (Task 3 report) rural residential scenario. The exposure frequency of 234 days/year is an average of the range of exposure frequencies discussed in the report (175 to 350 days per year). The Task 3 report calculated a range of probabilistic RSALs and a point estimate RSAL for each radionuclide at the 10-4, 10-5, and 10-6 risk levels. The FYR report compares the point estimate values at the 10-6 risk level to the 2017 calculated PRGs at the same risk level. At the time of the Task 3 report, 234 days/year was the Superfund default central tendency exposure (CTE) frequency, based on a study of time use patterns summarized in 1990. See Sections 3.1.2, 5.2, and 6.13 of *Task 3 Report and Appendices: Calculation of Surface Radionuclide Soil Action Levels for Plutonium, Americium, and Uranium, 2002* for details.
   C. Spreng asked if it was worth attempting to locate the input parameters associated with the residential PRG value used to determine UU/UE in 2006. All agreed that this would be helpful. **ACTION: C. Spreng to contact Susan Griffin (EPA risk assessor) to discuss.** Susan Griffin confirmed that the RSAL Task 3 document contained PRGs for the rural resident scenario. No more recent source of rural resident PRGs was found. The RSALs for the WRW that were used to guide accelerated actions during cleanup were attached to the RFCA (Attachment 5). However, the rural resident RSALs calculated in the Task 3 report were not incorporated into RFCA.
   D. Ward asked if the state of Colorado has defined the residential scenario (and associated input parameters) in their regulations/guidance in relation to the 25 mrem/year dose criterion. **ACTION: C. Spreng to look into this.** C. Spreng could not find a definition of the residential scenario or input parameters (e.g., exposure frequency) in the Colorado regulations.
   Because this question was not resolved on the call, participants agreed that additional discussion via email or phone was warranted once more information had been gathered. A conference call was not necessary.
3. The very last page of the RESRAD 2006 PDF file (Summary of Pathway Selections) looks incomplete. Was the page cutoff? Yes, the page in the 2006 PDF file was cutoff deliberately. The complete list of pathways can be viewed in the 2017 PDF file. The purpose of truncating the file was to focus on the list of input parameters.

Comments on Appendix C:

1. Paragraph following Table C-5. Revise second sentence to read, "Because the reevaluation of surface soil data discussed above verifies that the CRA process correctly identified the COCs, the rescreening of all PRGs against subsurface data is not warranted.

2. Second sentence of first paragraph in Section C2.3.2. Can this sentence be reworded or can it be deleted without any concern? ACTION: P. Gallo to discuss with L. Cummins, DOE contractor. Sentence was deleted.
3. Revise third sentence of first paragraph in Section C2.3.2 to include reference to Table C-5 at the end of the sentence.
4. Second to last sentence of last paragraph in Section C2.3.2. L. Masters indicated that a 2017 IRIS report on benzo(a)pyrene is available. Can we determine if this sentence requires revision based on this report? ACTION: P. Gallo to discuss with L. Cummins, DOE contractor. The January 2017 IRIS report for benzo(a)pyrene is applicable to the chemical risk review for this FYR. The oral ingestion slope factor for benzo[*a*]pyrene is lower than that used in the 2006 CRA, indicating lower risks than originally estimated. Appendix C, Section 6.2.2.1, and relevant tables were revised to account for this information.
5. Section C2.3.3, second paragraph. Delete sentence beginning, "In fact, 18 revisions…" and delete sentence beginning, "The cancer slope factors used…".
6. Table C-9 PRG Comparison for WRW. Footnote "a" – Revise second sentence to read, "The WRW scenario exposure frequency is 230 days/year…".
7. Tables C-9, C-14, and C-15. Be consistent in the number of significant digits displayed. Add footnotes to document any changes/rounding made on values sourced to an existing document (i.e., DOE 1994, DOE 2002).

Please let me know if I misinterpreted any of the comments or discussion. Thanks.

Patty

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